The AIR LINE PILOT

December, 1951

Capt. Blair—
"Around the World
Via 90° North
Latitude"

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Around the World

Capt. Blair organizes his oxygen mask before taking off on another leg of his around-the-world flight.

Capt. Blair's F-51 was already "a museum piece" when he made his globe-circling flight in it. The story of that flight, reprinted from "Combat Crew," is more than an adventure story. Captain Blair's story is one of thorough planning, of detailed preparation, of an overriding consideration for air safety.

By Capt. Charles F. Blair, Jr.
Pan American World Airways

You may think it odd for a private individual to operate a fighter such as the F-51 Mustang as a private aircraft. I can only say that almost everyone has a hobby and that this little flying machine happens to be mine.

In the more frivolous days before the Korean war, I nursed the idea that there must be some vehicle that could partly circle the globe and stay slightly ahead of the time zone changes en route. The only machine I could lay my hands on, and which I could afford, was an F-51 Mustang.

At least, at that particular time, I thought I could afford it, but found out later that such a hobby is at least twice as expensive as you originally estimate. I negotiated to buy one of Paul Mantz' two F-51s. My little ship was already something of a museum piece. It had won the Bendix race twice under the guidance of Mantz and, as fighters go, it had reached a venerable age.

F-51 gets face lifted

After a job of face-lifting which included installation of a new Rolls Royce Merlin engine, my F-51 took on a sprightly and quite eager appearance. However, the war in Korea suddenly flattened my grandiose plan and there I was, stuck with a fighter which could no longer fight, nor do much of anything else under the circumstances.

For a small aircraft, I had an elaborate concentration of machinery. Starting at the bow, as we former Naval men say, I had a brand new Packard-built Rolls-Royce Merlin engine, type 1650-9. This dash nine engine is known to be the most rugged of the Packard Merlins. It is so rugged that, in Bendix race competitions, Mantz makes a practice of using full takeoff power all the way from Los Angeles to Cleveland. Before I had even purchased this aircraft I had gone into the historical background of this type engine in great detail and came up with a great deal of confidence in what it could do. Besides being very reliable, it had the high altitude performance I was looking for. It has a two-stage, two-speed supercharger, and can carry rated power all the way to 35,000 feet.

In the cockpit, besides the normal flight instruments, I had an elaborate radio arrangement installed by the Lear Company, plus one of Bill Lear's LA automatic pilots. The radio equipment includes two automatic direction finders, two VHF transmitters and receivers, an HF transmitter with trailing wire antenna and an HF receiver. The HF transmitter is a single frequency affair. The two loops for the automatic direction finder are attached under the radiator air scoop under a single fairing. An emergency radio range receiver is available, operated by dry cells and therefore independent of the ship's electrical system.

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via 90° North Latitude

The Lear autopilot has separate cut-out switches for each of its functions, allowing me to cut out pitch, roll, yaw, or automatic elevator trim if any one should cease to operate. The automatic pilot is vacuum driven from the artificial horizon and directional gryo. I have an electric driven bank and turn indicator to permit instrument flight in case of vacuum system failure.

The fighter has a small ordinary aircraft magnetic compass installed just below the top of the cockpit canopy directly in my line of vision, and in a location which has proven to be comparatively free of magnetic influence. My compass installation had been one of my most perplexing problems. The original installation was subject to wide fluctuations every time an electrical component was switched on or off.

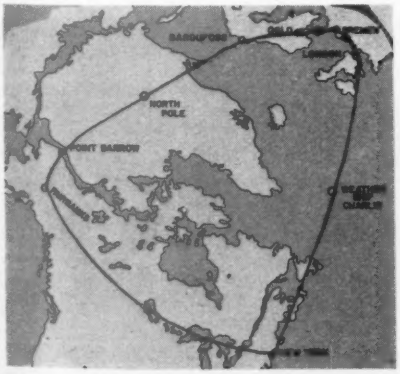
However, this ordinary little compass has been very satisfactory. I calibrated it with extreme care, and the extra diligence paid dividends. With the aid of my astro-compass installation I was able to compile a very accurate deviation chart in a two-hour test flight.

My astro-compass can be mounted or dismounted from a removable bar installed in a thwart-ship position directly in front of the pilot's seat. The compass mount can slide to the right or left extremities of this bar to such an extent that I can conveniently take azimuth readings through 270 degrees of arc, 135 degrees on each side of the bow.

Built for little guy

I became so involved dreaming up all of this apparatus for the cockpit that I almost forgot that I was supposed to go along for the ride. If you are at all familiar with a Mustang cockpit, which is built for little guys, and then consider my elaborate installations, you can imagine the sumptious comfort allowed the unfortunate character who was doomed to fly this machine.

In addition to all this apparatus, I have a lot of gasoline, oil, and oxygen to the extent that there is hardly one cubic inch of space to spare anywhere in the interior of the wings or fuselage.



Capt. Blair's route

Meet the author

Capt. Charles F. Blair Jr., member of ALPA Council 36 and senior pilot with Pan American World Airways, is a veteran of 20 years in aviation with 435 Atlantic crossings and 18,000 flying hours to his credit. He flies the New York, London, and Frankfort run.

After studying mechanical and aeronautical engineering, he earned his wings at Pensacola Naval Flying school in 1931. He joined Boeing Air Transport (now United Air Lines) in 1933 and, in 1940, American Export Airlines as chief pilot, flying the Atlantic to Lisbon. For the next two years, he conducted PBY-4 flying boat surveys in the West Indies, Central America, and the Canal Zone. On loan to Vought-Sikorsky in 1941, he pioneered the initial flight of the VS-44A flying boat and subsequent tests until the ship was put into operation.

In the last decade, he has made aviation history with a series of aviation "firsts." These included the first non-stop airline flight across the Atlantic, and return; the first airline North Atlantic winter operation; first scheduled flights of AOA with Boeing Stratocruisers and initial testing of the Martin Mars flying boat and Grumman Navy fighters.

My total fuel supply is 865 gallons, 690 in the wings and 175 in the fuselage. The entire wing from tip to tip is an integral fuel tank divided in three sections, and the fuselage tank is a nylon fuel cell. I have a 16-hour supply of oxygen and a 10-gallon reserve oil tank with transfer pump.

Although I had flown most of the Navy fighter types, I had never before flown an F-51, so I had much to learn during 50 hours of preliminary flying. After becoming accustomed to the ordinary operating procedures of the Mustang, I pursued an elaborate fuel consumption test program at various power settings and altitudes up to 35,000 feet. While timing these fuel consumption checks, there was also ample opportunity to run high altitude airspeed calibrations. The fuel checks showed that my fuel supply provided a range of approximately 5,000 miles at 325 MPH constant airspeed at 25,000 feet.

There is only one fuel tank gauge, installed in the wing center section tank. For various reasons, this tank would be the reserve tank. It is good for 1700 miles at long range cruise at 25,000 feet, sufficient to get me back to somewhere from almost anywhere.

I calibrated the gauge carefully on the ground with the ship in level flight position. For the other tanks, I had to rely on a fuel flowmeter and my test data. There is no gauge on my oil tank, so I calibrated the rate of transfer of my reserve and carefully recorded oil consumption during the 50 hours of testing.

Learning the plane

Some of this flying was done at night to become accustomed to the lighting. At the same time I developed a simple instrument approach procedure. From Burbank, I flew a one-stop trip to Fairbanks, returning non-stop, making a careful check of fuel consumption. Also, I tried to learn every detail of the electrical and hydraulic systems, plus the precautions which applied to use of oxygen.

During all this preliminary flying I was lucky enough to have the advice and assistance of Paul Penrose, formerly a captain with Western Air Lines. During the war, Paul was an F-51 test pilot and he knows everything there is to know about this type fighter. Without his help I would have had to learn a lot of things by trial and error, but by the simple expedient of listening to his words of wisdom I saved myself from many a headache.

In October, 1950, I brought the plane to New York, and came up with a few thoughts about taking an interesting trip. In my years of flying the Atlantic with American Export, American Overseas, and now with Pan American, I had developed a curiosity about the high altitude wind phenomenon known as the "jet stream".

It seemed like a good idea to pick a particular choice specimen of these concentrated westerlies and see how fast my little F-51 could non-stop the Atlantic from New York to London. For several months I kept an eye on the high altitude winds and, at the end of January,

The F-51 cockpit, Capt. Blair found, was made for the little guy. Careful thought went into the organization and arrangement of the cockpit.

found a particularly violent specimen which blew me to London in the record time of seven hours and 48 minutes, averaging close to 450 MPH ground speed. I navigated entirely by radio, using the ADFs and radar fixes. However, I had backed this up with pre-computed celestial calculations, which I did not need. Cruising altitudes for this flight were generally above 29,000, up to as high as 37,000 feet. I did not manage to stay in the core of the jet stream because the axis of the jet lay to the south of the great circle route I flew. I did intersect the center of the stream in the vicinity of weather ship Charlie, staying in it for several hundred miles to the east of Charlie. The wind velocity in the vicinity of Charlie was estimated to be 230 MPH.

The oxygen lifeline

On this flight, my oxygen equipment and technique was a particularly vital consideration because most of the time I was above 30,000 feet, climbing as high as 37,000 feet to top one front. I carried an emergency jump bottle, good for 10 minutes, if the main oxygen system failed. It was kept in ready position at all times. Using a demand type mask, the metering valve was set at maximum flow for takeoff and climb, and at minimum flow for cruising, except when moving around in the cockpit. After wearing the mask for seven and three quarters hours and flying at very high altitudes without pressurization, I felt perfectly fit upon arrival in London, carrying out a normal round of social activities without noticeable fatigue.

Of course, this left me with an airplane in England and a temporary sojourn permit good for only six months. There were various ways to bring it home and almost everyone suggested that a steamship would be an excellent solution.

The most intriguing of all routes, however lay north of Norway across Spitzbergen, 90° North to Point Barrow and Fairbanks. From northern Norway to Fairbanks, the distance is slightly less than 3300 land miles. The total distance, London to New York is slightly in excess of 8,000 miles. I must confess that I had never considered any other route. When I left New York in January, I was reasonably certain that the northern route offered the most interesting possibilities.

Incidentally, this route has certain practical possibilities. It is the shortest available route from the British Isles and Northern Europe to Japan. If, eventually, the route through India should not be feasible, this northern route would be the connecting link between Europe and the Far East. There is good terrain for airport construction on Spitzbergen and the terrain in northern Sweden and parts of Norway and Finland are favorable.

There were a number of considerations which were of minor importance in selecting this route. The Mustang has notoriously bad ditching characteristics, whereas the ice which covers the entire Arctic between Spitzbergen and Point Barrow affords the possibility of a successful forced landing, although the chances of rescue admittedly were not rosy. Futhermore, the Alaskan weather at that time of year is normally at its best.

Considering the problem of operating a single engine airplane, I had less to fear than one might think. The Packard Merlin engine has an excellent record when properly handled. It has a record of almost no failures for low time engines which have been successfully run in. When I departed New York for London, the engine had been nicely run in with a total of 50 hours. A failure in the next 100-hour period would have been almost unheard of. My main concern was the possibility of generator failure, although that too was remote. A generator failure would not have been disastrous, but it would have been inconvenient.

Preparation the hardest part

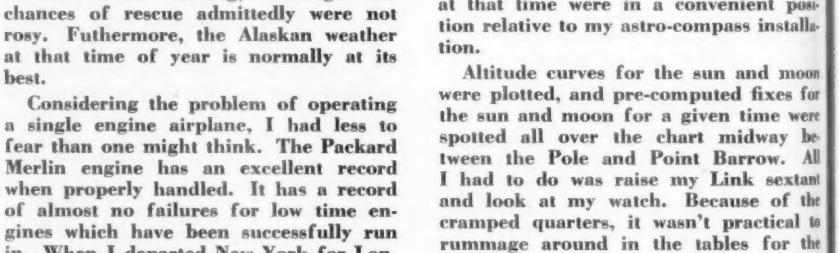
It is the preparations for a trip of this kind which always prove to be the hardest part. I was particularly concerned with the navigational problem, of course, and had worked out the entire navigational procedure over and over to check the possibility of a misconception.

I had originally planned the flight almost a year before and had gone over the navigation with the American Overseas Airline Chief Navigator. Several months previously, I visited the famous navigation expert, Capt. P. V. H. Weems to obtain his approval. Captain Weems wasn't pleased with my single engine, but he indicated my theory was correct. We worked out the entire problem backwards and forwards to be sure there were no mistakes. I had selected the 29th of May for the flight across to Alaska because the moon had a northerly declination at that date and its position was almost 90° from the sun. As it turned out, the presence of the moon was of no importance, but the fact that it was available in the sky made me feel better. May 30 was selected as an alternate in case of weather or mechanical problems on the 29th. The departure time from Bardufoss in Northern Norway was set for 1500 GMT and a delayed departure for 1600. Four sets of precomputations, two for the 29th and two for the 30th were worked out for the two departure times. The Bardufoss departure time was set up in mid afternoon for various reasons, one of them being that the sun bearings at that time were in a convenient position relative to my astro-compass installation.

Altitude curves for the sun and moon were plotted, and pre-computed fixes for the sun and moon for a given time were spotted all over the chart midway between the Pole and Point Barrow. All I had to do was raise my Link sextant and look at my watch. Because of the cramped quarters, it wasn't practical to rummage around in the tables for the answer.

Most important of all, sun azimuths were plotted for each hour. As it actually turned out, the trip could have been flown very successfully using nothing more than these azimuths of the sun and the Point Barrow radio.

In May, I went to England to get the airplane ready for its jaunt. Of course,



The final runup before takeoff at Bardufoss. The next stop: Fairbanks, Alaska.

Capt. Blair goes over his flight plan before taking off from Bardufoss, Norway, on the leg of his journey that took him over the North Pole.

my first considerations were the engine, its accessories, and the radios. Pan American Airways in London and Rolls Royce at Hucknall put the ship, engine, and radios in top condition and late in May I flew to Oslo, the starting point of the trip to New York and from where I was to originate my pay load—3,000 covers of Norwegian mail for the Damon Runyon Cancer fund. Meanwhile, in Oslo and Stockholm, Capt. Don Swenson, who flys for PAA on the run between Stockholm and Helsinki and who cuts quite a figure in Scandinavian aviation circles, arranged 1,001 details for my projected operation into and out of Norway.

The flight to Oslo

Flying to Oslo, I cruised at 25,000 feet to again check my accessories for high altitude operation, particularly the submerged fuel pumps in the outer wing tanks. Unless these pumps were working properly, it would not be possible to use the outer wing tank fuel above 13,000 feet. Instead of crossing the North Sea, I flew overland via Amsterdam, Bremen, and Aalborg, to avoid unnecessary water crossings.

In Oslo, the Norwegian Royal Air Force, the Norwegian CAA, and the weather people at the Norwegian Meteorological Institute offered me their enthusiastic help. The Norwegian RAF assigned a Catalina to patrol south of Spitzbergen and maintain radio contact as long as possible. The CAA arranged for all radio beacons in northern Norway and Spitzbergen to be functioning when my ship was in their vicinity. The weather people arranged for a special forecast from Oslo to the Pole. My weather information from the Pole south to Fairbanks was to be furnished by Pan American Airways in collaboration with USAF in Alaska, teletyped to Oslo.

(To be concluded in January issue)

Baldwin wins 4-year fight for UAL reinstatement

Four years of litigation ended December 17, 1951, when Mr. Harry Abrahams, neutral referee, handed down a decision in favor of Benton R. Baldwin. Arbitrator Abrahams decided United Air Lines did not have just cause to fire Baldwin.

The case evolved from the crash, on take-off, of a UAL DC-4 on May 29, 1947, at LaGuardia Airport in which 44 persons, including the co-pilot, were killed. Captain Baldwin, who had an excellent record as pilot and employee, was at the controls.

Nearly a year later, Baldwin was removed from the UAL payroll, and, on February 17, 1949, was formally dismissed. In upholding its action, the company contended that Baldwin "had failed to exercise proper judgment with respect to the attempted take-off," and that management did not feel it could permit him to fly for the company "in the interest of safety." The company contended that the gust lock was on at the time of the attempted take-off.

In defending Baldwin, ALPA insisted that he was not responsible for the accident; that it resulted from causes beyond his control, and could have resulted from a wind shift, inadequate computation of runway lengths, temperature and humidity accountability, or many other causes.

In his decision, however, Mr. Abrahams rejected all "possibilities, probabilities, hypotheses and surmises," judging the case solely on actual evidence presented.

Mr. Abrahams stated that evidence presented revealed: 1). The gust lock was not on in the wreckage. 2). No witness testified that the gust lock was on. 3). Baldwin stated the controls were free and were used during take-off.

Until Proven Guilty

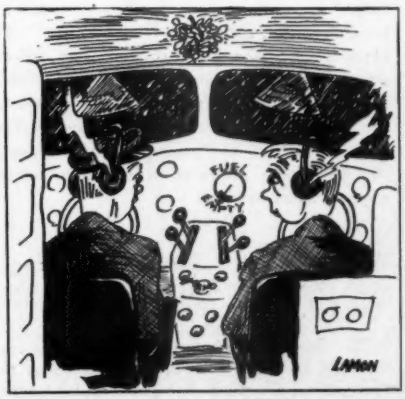
Of importance to all pilots was Arbitrator Abraham's discussion of the *Burden of proof* in discharge cases. "The Union," he wrote, "states that the burden is on the Company to show that it has just cause for discharging Captain Baldwin." And Mr. Abrahams agreed with the ALPA premise, adding, "Discharge of an Air Line Pilot for just cause will generally amount to his professional death, with loss of seniority and income. It is for that reason that the contract specified that a discharge must be for just cause. What is 'just cause' varies with each case. The company initiating the discharge must be in a position to prove that the discharge was for 'just cause'." Arbitrator Abrahams concluded that UAL did not have just cause for its action.

Benton R. Baldwin

Decision

The Abrahams award provided that the discharge of Captain Baldwin was not for just and valid reasons, that he should be reinstated without loss of seniority and with pay for time lost, in accordance with the terms of the collective bargaining agreements between the parties, and that his personnel record should show that he has been cleared of the charges against him.

Mr. Maurice H. Schy, of ALPA's Legal Department, and Mr. Henry Weiss, of New York, represented Captain Baldwin and the Association. C. N. Sayen coordinated ALPA's case. UAL was represented by attorneys Charles McErlean and Thomas Daly.



"TOWER TO FLIGHT 13 . . . CEILING ZERO, ALTERNATE CLOSED, GARBLE-GLURP, HAPPY NEW YEAR, ANYWAY."

ALPA Engineer goes to Bermuda . . .

Carl F. Eck, member of ALPA's Engineering and Air Safety Department, was in Bermuda on November 14, 15, and 16, attending an international seminar on air safety. The conference drew more than 70 experts from the U. S., Great Britain, Canada, the Scandinavian countries, South America, and other points on the globe. Here, then, are some of the highlights drawn from Mr. Eck's voluminous notes:

Dr. Kenneth Andrews, Assistant Professor of Business Administration, Harvard Business School. "Morale and Safety".

Safety is a by-product of morale, according to Dr. Andrews.

He then threw some questions at the aviation industry:

Is a captain a chief executive or just a flyer?

Does the captain act as a leader or just a helmsman?

Does the captain form his own crew or is a crew assigned to him?

Does the pilot have a chance to be an administrator?

Is crew coordination and team play predominant?

You cannot achieve results, he continued, with one-way orders. They must be agreed to by common understanding and inter-communication.

Accident investigation should include checking morale factors. Technical progress has thus far exceeded human relations progress.

Capt. John Gill, EAL Chief Pilot, Eastern Region. "Approach and Landing Problems".

Capt. Gill pointed out that 73 per cent of the accidents are suspected to be from the lack of visual aids. He felt that the left-hand row system of approach lights have caused accidents. (Left-hand row encourages turns to the right of the runway.) Multiple row lights are not satisfactory even when considering the overrun area of approach because pilots would be tempted to land in the approach area where the two rows of lights existed under minimum visibility conditions. The slope line system is not recommended because of the sensory illusion of tilt of the runway and because the 45-degree angle of the light sources gives a false horizon line.

William Steiglitz, Design Safety Engineer, Republic Aviation Corporation. "Safety".

Mr. Steiglitz pointed out that those interested in safety should not attempt to run other people's business but should attempt to work with other groups and see what progress could be made in that way.

He stated that as each bit of air safety progress is made, a safety bulletin should be issued — so that the same mistakes won't be repeated. Part of the work of Mr. Steiglitz' department is to investigate accidents that involve engineering items and to issue accident reports. These reports are made available to all the design engineers as an additional reminder of the importance of safety in their business.

In conclusion, he pointed out that, from his experience, he couldn't see how any air line could be without an Air Safety department and still maintain the degree of safety which they desire.

Carl Christenson, UAL Flight Safety Engineer.

There should be a very definite order of importance in the service that the air line must provide, and safety is topmost —with that item underlined . . . and a long dash to the second item, which is comfort.

Sometimes, he pointed out, people are unwilling to listen to the safety messages they should. They always believe that the letters and the warnings apply to someone else. He believes that the organization that represents these people should have a direct responsibility to require that their personnel listen to sane and safe thinking about their job. There must be team work. Team work is appreciation of the other man's job.

Milford Vanik, Boeing Aircraft. "Safety Dollars vs. Sense".

In 1952, Boeing is starting a training program for all its engineers. They will go through a standard course that will bring them abreast of developments on safety and engineering practices. Boeing presently has a three-man safety committee in each engineering unit which reviews airworthiness of designs.

Dr. Ross A. McFarland, Department of Industrial Hygiene, Harvard School of Public Health. "Fatigue".

Discussing design features that cause fatigue, Dr. McFarland pointed to anti-glare glass, which cuts out 27 per cent of the light and may be actually dangerous under some operating conditions where a transmission of that extra light may be necessary for safety.

Waiting increases fatigue. Psychological studies on fatigue were conducted on Pacific operations and it was found that laying over at Honolulu seemed more fatiguing than no layover. In other studies it was noted that the time of reaction was the first to suffer and that fatigue causes a man to accept a lower level of performance. Still other studies showed that illness rates shot up where 200 flight hours per month were experienced.

The comfort of a pilot, said Dr. McFarland, is an important factor.

E. S. Calvert, Principal Scientific Officer, Royal Aircraft Establishment. "Approach and Landing Problems".

By means of diagram, Mr. Calvert showed that a thin layer of heavy fog is a very dangerous thing for a pilot to contend with because his horizontal visibility decreases greatly as his distance above the ground decreases. Mr. Calvert further felt that the runway light pattern is not as safe as the new approach lights. It would be much better, he said, if lights could be placed on the center of the runway instead of on the edges. He believes that a person is 70 times as sensitive to center line lighting than to side lighting. Dangerous illusions are built up with side lighting.

Hayward Florer, Flight Operations Division, CAA. "Mid-Air Collisions in VFR".

Mr. Florer pointed out that there have been 11 scheduled air carrier mid-air collicions, with 136 people killed. There have been 110 accidents in the air with other aircraft, with 127 people killed.

It is up to everyone, he stated, to be convinced of the responsibility of observing aircraft. The CAA's program con-

It was work, not a vacation, that took an ALPA engineer to the winter resort island of Bermuda. The object: a free exchange of views on air safety among experts from many countries. Some highlights from that safety seminar are presented here.

. . . for air safety

tains three items: flight discipline, cockpit procedures, and the use of facilities. Cockpit standardization, minimum VFR requirements, ATC clearances, close tolerance on navigation omni range DME radar equipment are some of the items used to combat collision hazards.

Prof. Robert Killoren, Acting Director Dept. of Aeronautical Engineering, Parks College of St. Louis University. "Aircraft Fire Analysis".

Prof. Killoren listed the effectiveness of various fire-fighting agents as follows:

1. Water-fog is the best control of fire and heat. (Extinguishing action poor.)

2. Foam action requires time and is used to prevent flashback.

3. Fog and foam is the best present combination to extinguish and suppress fire.

4. Restriction of oxygen method of extinguishing has its drawbacks. The combustible ranges of air and gasoline is very wide.

5. If heat source is contained, a restricted fire goes out.

6. If fire has not started, an air blast would reduce the heat and mixture potential for fire 100 times.

7. It reduces a flashback in an air stream to zero.

8. Reduces personnel required to protect the fire-fighters.

9. Relatively simple apparatus is required to use air blast to assist in fire fighting. (Every aircraft on the field could be considered spare equipment.)

A film was then shown which demonstrated that a BT-13, blasting its air against various types of fires, could blow flame from various test areas. During the film, it was stated that 34 per cent of fires after crashes occurs at airports, which would further indicate the feasibility of this type of approach. There is an actual case on record where one jet pilot saw another pilot crash-land and immediately taxied over to where the crash occurred, turned around, aimed his jet blast at the fire, and was successful in keeping the fire blown away from the cockpit so that the pilot of the wrecked aircraft could escape before the flames got to him. This shows that even a hot blast could be a very effective agent in controlling fire areas.

The speaker indicated that he thought that an engine and prop combination, with water injected into the air-stream, might be a very potent fire-fighting weapon. It was pointed out that a man can work in a 40 MPH wind without danger of being blown over. In areas of turbulence, fires were intensified, therefore it might be possible to clear the fire away from the rear passenger exit while increasing the blaze to a raging inferno in the area of the cockpit.

Dr. Ross Gunn, Director Physical Research, U. S. Weather Bureau. "The Causes and Control of Precipitation Static".

Static is generated in aircraft by flights through clouds, ice crystals, and rain. About 250 volts per cubic centimeter is where the noise level starts being bothersome with static. The cause of static is the discharge of electricity on the antenna. If you transfer the charge away from the antenna, the static is eliminated. With a 040 bare wire antenna, static conditions were very bad. By using a polyethalene-covered antenna, static resistance was increased about three times.

Dr. Gunn believes that the wicks on the aileron and wing tips are unnecessary if insulated antennas are designed. He does admit, however, that wicks help to prevent Corona discharge. He feels that leaking gasoline is a hazard equal to a match being struck to the gasoline if Corona discharge or static discharge occurs at the gasoline source.

ALPA was well-represented in the list of award winners at the Bermuda conference with one active member and another executive inactive member. The awards were made "for distinguished work in the field of air safety" to three Americans and one Englishman.

The award winners, with quotations from their citations, are, left to right:

AA Capt. E. A. Cutrell, Council 22, "Working through the Air Line Pilots Association, independently sponsored the testing and adoption of the center line approach system. He coupled this development with intelligent but increasing resistance to less efficient types . . . thus keeping his country and his organization in tune with international developments."

Wing Commander E. M. Ware, Director of Civil Aviation for Bermuda, who presented the awards.

Dr. Ross Gunn, of the U. S. Weather Bureau, in recognition of his "successful research in the causes of precipitation static in aircraft radio communications."

E. S. Calvert, principal scientific officer of the Royal Aircraft Establishment, for his work on the center line and bar approach light pattern.

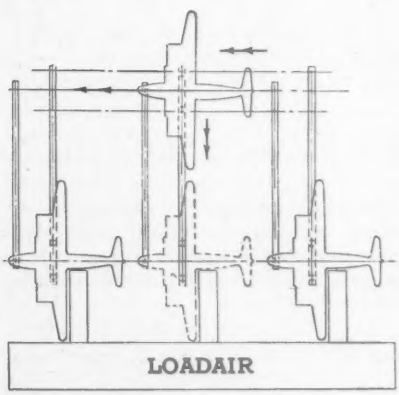
Capt. John Gill, Chief Pilot, Eastern Region of EAL, whose interest in landing and approach aids "led him to introduce and experiment with the sequence flashing condenser discharge lights as an aid to landing in restricted visibility."

Loadair cars in "out" position on their tracks at Soledad Airport. At extreme left is the front car for aircraft's nose wheel and at center, the two cars for the main gear.

Loadair Debut in Columbia

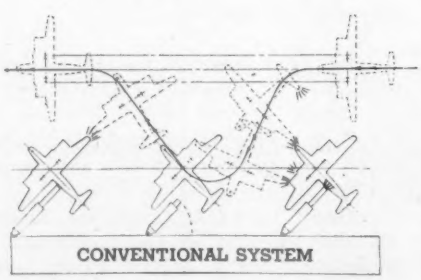
Whiting Loadair, an automatic means for parking aircraft immediately adjacent to an airport terminal in order to speed ground movement of passengers and air cargo, as well as plane service, was demonstrated this month at Barranquilla, Columbia, by Whiting Corporation, Harvey, Illinois. Attending, were local government and business officials, representatives of major airlines, aircraft manufacturers and airports, and members of the U. S. Civil Aeronautics Authority.

Avianca, which recently set world cargo carrying records, was the first airline to use Loadair. They placed it in test operation approximately three months ago. Those attending the demonstration were told by officials of Avianca that it had reduced ramp time by at least 50 per cent. The system utilizes three cars which are virtually flush with the airport pavement, and travel on rails from the taxi strip to the terminal building. The aircraft is taxied onto these cars and mechanically locked in place. Push button operation moves the cars, bearing the aircraft sideways until it is flush against the terminal. Both passengers and cargo are unloaded directly into the building. Plane servicing operations may also be handled from fixed units in the terminal to eliminate much portable equipment.



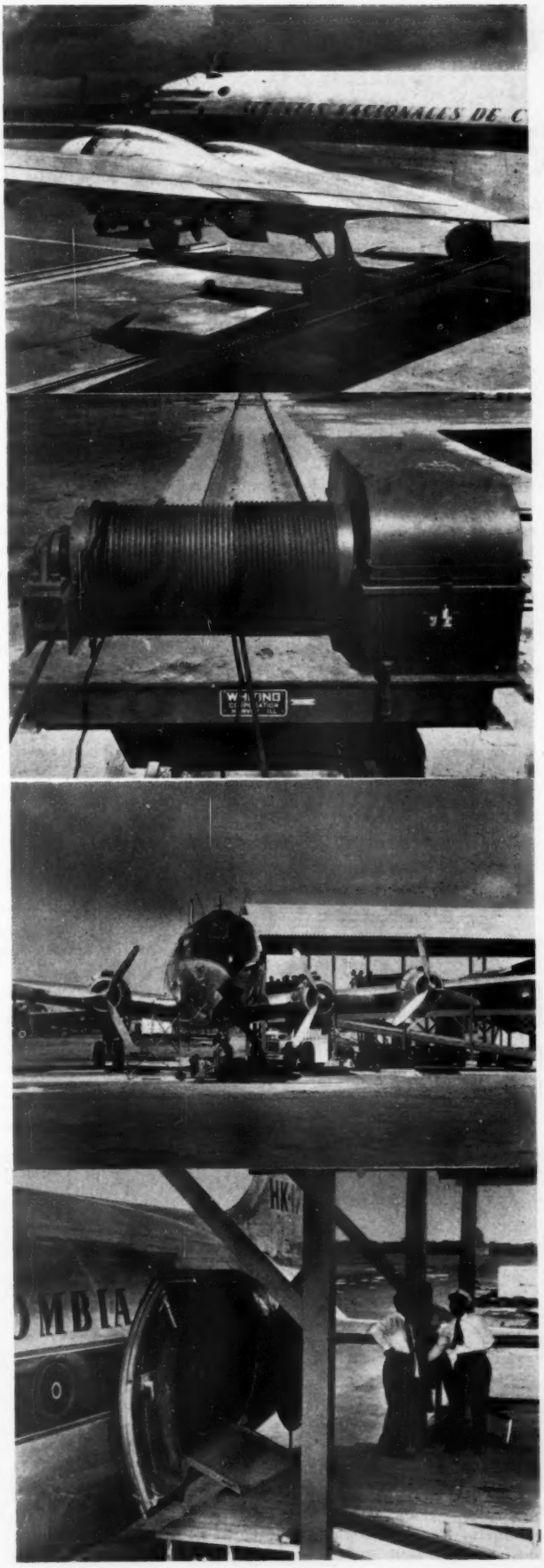
An artist's eye view of the conventional and . . .

. . . the Loadair aircraft parking systems.



Manufacturer's representatives said that Loadair can be used to greatly expand the utilization and effectiveness of existing terminals. In the case of new airports, it permits appreciable savings in building and pavement costs. They estimated that such increased utilization or savings in cost should more than offset the capital expenditure required for the equipment. From their airlines' point of view, it was pointed out that additional savings may be achieved through faster, more efficient loading and servicing of planes. The automatic movement of the airplane also reduces possible damage to the craft while taxiing, or through being bumped by mobile equipment while parked.

Also, passengers are protected against unfavorable weather while entering or leaving the airplane, both of which are also accomplished in much less time. Cargo handling is similarly speeded up and fewer personnel are needed for loading, unloading and servicing operations.



2

Aircraft ready to be moved to the terminal.

3

Electrically operated winch that pulls main wheel cars to and from the terminal.

4

Aircraft moved in flush up to the dock.

5

Unloaded, the aircraft is ready to receive cargo.

Clearing up a point on control clearance

We are all familiar with air traffic control clearances of 500′ on top, but at times we may lose sight of exactly what this means from the pilot's responsibility viewpoint. At times when these words are heard—cleared to a certain fix at, or above, 500′ on top—it is immediately assumed that clearance is given for the pilot to descend to within 500′ of the clouds without regard to the elevation of terrain or minimum approved instrument altitudes.

This is not the case.

When the air traffic controller clears a flight to fly at, or above, 500′ on top of the clouds he means that the flight should not descend below his lowest authorized minimum altitudes, but, under all conditions, he should remain clear of the clouds by 500′ because there is traffic in the vicinity and he is not being kept separated from that traffic by air traffic control.

This may be seem to be a small point. However it can be a large point at times if a violation is filed. It can be an even larger point is an accident occurs because of the misinterpretation of the regulations involved.

The regulations involved are quoted below for your reference:

"Civil Air Regulation 61.271 — INSTRUMENT APPROACH RULES:

Altitude maintenance on initial approach. When making an initial approach to a radio range station, on instruments or on top of overcast or clouds, an aircraft in scheduled air carrier operation shall not descend below the pertinent minimum altitude for initial approach specified in the air carrier operating certificate for such station, until arrival over the radio range station has been definitely proved by the method outlined in the appropriate instrument approach procedures of the air carrier operating certificate."

"Civil Air Regulation 6.272—

Letting-down-through procedure. When instrument authority is authorized standard instrument approach procedure shall be established by the operator for each radio range station used or to be used for letting-down-through, and approved by the Administrator and included in the air carrier operating certificate. The letting-down-through methods, procedures and minimums specified shall be strictly adhered to."

If anyone has knowledge of a different interpretation to these regulations than that contained in this article, please send the details to the Engineering and Air Safety Department at ALPA Headquarters

Are you wearing a new ALPA emblem? The new pin, which is superior to the old in every way, is available at Headquarters for 75 cents each. It has a bronze base and is gold plated with the letters, ALPA, cut clear and distinct. "EMBLEMIZE" now!

1952: year of challenge, promise

The year of 1952 will be an important one for ALPA and the pilots it represents. There will be challenges and problems. They will be met. There will be battles. ALPA will fight them. ALPA's Statistical and Research Department, in this summary of the past year and prospects for the year to come, looks forward to "the battles and blessings of 1952 with confidence and enthusiasm."

Vice Admiral Emory S. Land, president of the Air Transport Association, in a recent talk at the annual Wright Memorial dinner in Washington, D. C., outlined a 20-point "ATA creed," and we quote point 4 of this creed herewith:

"We believe in a good strong pilots' union. We believe that pilots are a part of management. We believe that officials of the ALPA should police themselves so that there can be no doubt of discipline in the cockpit."

It may sound contradictory to hear Mr. Land say in one breath that he believes "in a good strong pilots' union" and, in the next breath, to say "pilots are a part of management." But, in the sense that any event affecting the air transport business has a like effect on the livelihood of the Air Line Pilots Association and its members, it cannot be denied that the ALPA is vitally interested in *all* of the problems now confronting the industry.

The year 1951 was somewhat of a Rubicon to the Air Line Pilots Association but, having crossed it, the year ahead seems full of challenge and promise.

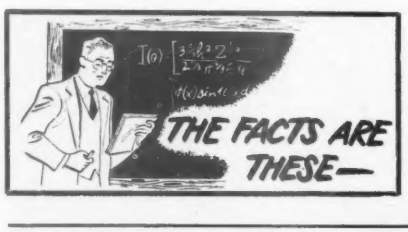
During the year 1951 the Air Line Pilots Association completed 27 basic air line agreements. *Nineteen of these were completed and signed since August 28.*

This means that more than 90 per cent of our members are now working under current agreements—a fact that has not been true for several years. True, these agreements signed since August are still awaiting approval by the Wage Stabilization Board but they cannot, we think, in justice, be disapproved.

To some extent a few of the troubles which beset the Association in 1951 will remain with us for a time into the new year. But over and above these problems, new, even more difficult, hurdles lie ahead. If the interests of management are ours, and it seems that, for common economic reasons some of them are, then "little old ALPA" *needs* indeed to be "*a strong pilot union.*"

Revenue passenger miles traveled by air during 1951 increased by 30 per cent and, by some strange coincidence, the number of pilots employed in the air transport field increased by over 20 per cent. Over 1,500 new pilots have been hired in 1951. The new equipment being received by the air lines and the aircraft on order and now being ordered will not be sufficient nor delivered in large enough quantities *this year* to immediately displace these newly-hired prospective members of ALPA.

Optimism reigns everywhere concerning the immediate future of air transport. The ATA prophesies an average air-coach fare of 3.9 cents per mile in 1952 which is lower than first class railroad fare (4.25 cents per mile) and a natural consequence of this should, and probably will be, far more air line passengers than were ever handled before.



So far, so good. Pilots like to be kept busy and to feel there is some promise of good in the future. But 1952 promises other things, some of which may not be good. Some of these "other things" are mergers, wage controls, taxes, airlifts, and, of course, the always present threat of mobilization in the face of war emergency. The new attitude being taken on air line "subsidy" and the advent of the commercial use of jet-propelled aircraft are going to have an impact on air transport, no doubt, this year.

Mr. Land, in the above-quoted address, further stated that the fact of jet is understood, accepted, and that now the task before the air transport industry is to make it a practical part of the air transport system of this country. The British Comet will, no doubt, be used between New York and Bermuda this year over B.O.A.C.'s routes, and this will hasten our own air lines' jet experiments. Due to this competitive impetus, Eastern or National are likely to jump the gun and beat the leader—American—in this new technological phase.

Looking ahead, the year of 1952 seems crowded with portent of things both good and not-so-good for ALPA. Pilots who remember the optimism of 1946 and the subsequent economic let-down can shake their heads at forecasts that preclude setbacks but, as "*a strong pilot union,*" alert and capable of taking prompt action in affairs of their own interest, the Air Line Pilots Association can and should look forward to the battles and blessings of 1952 with confidence and enthusiasm.

—By Ronald L. Oakman
Statistical-Research Dept.

First photograph of all three members of the Railroad and Airline Wage Board members. Left to right, are Walter T. Nolte, Chairman Nelson M. Bortz, and Francis A. O'Neill, Jr.

Pressure, wordy documents criticized by CAB

The following story, from the November 9th issue of American Aviation Daily, is a report on a welcome innovation in CAB procedure. A strict enforcement of these new ethical standards will do much to combat pressure attempts in CAB hearings.

The Civil Aeronautics Board sharply criticized certain airline parties to economic proceedings before it for "insinuations of bias," filing "unduly prolix and largely repetitive documents," pressure attempts, and otherwise ignoring the ethical standards set by the Board last March. Though no specific instances were cited by the Board, the criticism contained in a prepared statement was issued simultaneously with an order striking from the records motions of American, Eastern, Delta and Chicago and Southern in the bitterly contested Southern Service to the West Case.

Today's action is said to be part of a Board campaign to preserve the dignity of its proceedings which recently has seen documents of American stricken from the EAL-NAL Interchange Case, a document of Pioneer Air Lines stricken from a case because it contained "frivolous" arguments, and a recent regulation prohibiting filing more than one petition for reconsideration by the same party.

CAB indicated today that despite the existence of ethical standards, it has been confronted "to a disturbing extent with practices that are repugnant not only to the principles announced by the Board, but to any reasonable standards of conduct and procedure." CAB said it hopes the practices will not continue; if they do, it will utilize every method at its command to discipline the offending person or persons "in a manner appropriate to the gravity of the offense."

Documents have been filed, CAB said, "which are unduly prolix and largely repetitive of documents filed earlier in the same proceeding by the same parties . . . which, although labeled as motions, petitions or answers thereto, in substance amounted to supplemental briefs on the merits of matters already briefed or argued orally before the Board, even though requests to file such written briefs have been denied." In certain documents, Board continued, parties by "innuendo and insinuation have implied that Board policy was being dictated by one or another . . . air carrier, or that Board decisions were motivated by personal preference or bias. And parties have sought to bring pressures to bear upon the Board in relation to specific cases pending before the Board for decision. It seems almost superfluous to state that practices such as these are an affront to the Board, are destructive of a prompt and orderly disposition of cases, and are unfair to parties comporting themselves properly."

The documents of American, Eastern, Delta and Chicago and Southern named in the jointly-released order today were filed in the Southern Service Case following a National Airlines' petition for reconsideration of a previous Board order. CAB directed that they be stricken from the record because "substantial parts are, in fact, supplemental briefs . . . filed after oral argument was completed and the case stood submitted the Board . . . and directly in the face of the fact that a request for leave to file briefs was made by several of the parties and such request was denied by the Board."

Mehrens wins Brewer Trophy

CAA's supervisor of aviation education, Dr. Harold E. Mehrens, received the 1951 Frank G. Brewer trophy for outstanding aviation education work.

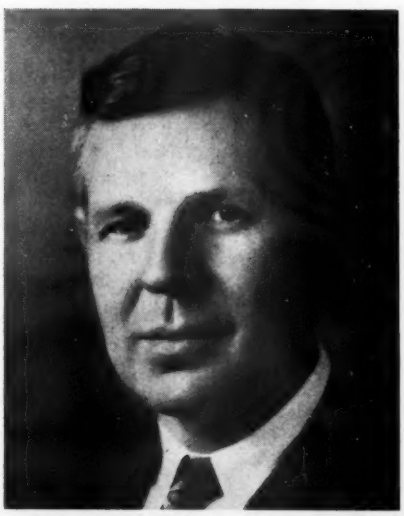
Dr. Mehrens won this honor for his years of work in promoting aviation courses in public schools and colleges.

He spends most of his time traveling throughout the country conferring with state departments of education and aeronautics, CAA regional offices—in fact, with every group which is interested in furthering the country's understanding of aviation.

Before joining CAA in 1942, Dr. Mehrens headed the English department at Eastern New Mexico college. While there, he accumulated 300 hours of flying time as a member of the Portales, N. M., flying club. In 1940 he conducted CAA ground school courses in the civil pilot training program.

In 1942, Dr. Mehrens became CAA supervisor of the ground school courses at Oklahoma City. Here he prepared instructional material in navigation and meteorology, and qualified for all seven of the ground school ratings.

He also has served with CAA's foreign national program, and supervised the mechanics' training program at the Spartan School of Aeronautics, Tulsa, Okla.



Author of many aviation articles, Dr. Mehrens recently completed a text for use in aviation orientation courses. He is secretary of the National Aviation Education council, which he helped organize.

Dr. Mehrens won recognition for his many efforts on behalf of aviation when he received the Brewer trophy at a Washington dinner on Dec. 17.

ALPA FCU Financial and Statistical Report of November 30, 1951

BALANCE SHEET

Assets

	Nov. 1951
Loans (559)	$297,489.10
Cash	43,765.98
U. S. Bonds	135,957.82
Federal Savings & Loan	
Furniture & Fixtures	2,239.73
Prepaid Expense and Misc.	528.12
Total	$479,980.75

Liabilities

Shares	$453,939.83
Reserve for Bad Loans	3,879.56
Undivided Profits	512.75
Profit	21,647.61
Accounts Payable	1.00
Total	$479,980.75

STATEMENT OF INCOME & EXPENSE
(Year to Date 1951)

Income

Interest on Loans	$30,507.79
Investment Income	2,026.65
Other Income	7.74
Total	$32,542.18

Expenses

Office Supplies	$ 751.80
Educational Expense	50.94
Loan Insurance	2,014.72
ALPA Reimbursement	6,250.00
Depreciation	679.35
Miscellaneous	1,247.76
Total	$10,894.57
Net Profit	$21,647.61

Statistical Information

	Nov. 1951
Number of Members	1,911
Number of Potential Members	9,307
Loans Made Since Organization (Number)	1,481
Loans Made Since Organization (Amount)	$933,157.53

'The Flexible Approach'

a statement of future plans and policies of the CAA by its administrator

The new administrator of CAA, Charles F. Horne, addressed the Aviation Committee of the Los Angeles Chamber of Commerce on October 30. Portions of that speech—titled "Future Plans and Policies of CAA"—are quoted below:

"CAA has only one basic policy, which guides all our efforts, and that is to encourage and help the development of safe, useful aviation. Fostering the development of aviation requires a flexible approach, an approach that is sometimes difficult to maintain in Washington.

"The flexible approach means freedom from preconceived notions, a willingness to experiment with and evaluate different solutions to a particular problem, but also the determination to put into effect whichever solution appears to be indicated by the available evidence. We cannot have everything just as we would like it, but we can make an honest and forceful case both for the contributions of civil aviation to defense, and the need to keep this still relatively new industry strong enough to grow to its full potential in our economy.

"A survey just completed shows encouraging improvement in dependability of scheduled air travel. The percentage of scheduled-plane miles cancelled has been reduced by more than one-quarter in the last two years, and was down to 2.1 per cent in the fiscal year 1951. We cannot be complacent, however, when we note that more than 70 per cent of the plane-miles cancelled last year were scheduled during the bad-weather months from November to February. We must come closer to all-weather flying than that if air transportation is to achieve full stature in our economy.

"Progress also is being made in reducing delay time at major terminals. Although the total number of instrument approaches during the first six months of 1951 were up 16 per cent from the same period in 1950, total delay time this year was up only 8 per cent. This works out to an average delay time at the holding fix of one minute, 23 seconds, compared with one minute, 30 seconds last year. We can attribute this reduction in delay time to several factors. Institution of direct radio communication between most CAA air route traffic control centers and aircraft undoubtedly has helped. The beginning of radar use for traffic checking and control has contributed. Miscellaneous operating improvements, such as better traffic patterns, more concise and clear phraseology, and the like, have played a part.

Charles F. Horne

"To all this we can say: 'Good, but not good enough.' In aviation, it is impossible to stand still. Unless we move ahead, we fall behind. For example, we expect the U.K. will wish to begin operating jet transports between Bermuda and New York early next year. One such flight a day will be no particular problem for our New York traffic control set-up, but it foreshadows a time when we must be ready to handle many such flights. We must be ready with equipment and procedures to bring jets down swiftly and surely, for it is my understanding that they cannot hold below 20,000 feet without excessive fuel consumption. Once they start descending from this level, they are committed.

"We plan to extend direct communications to all 26 centers by January—23 have it now. An additional 13 precision approach radars and another 42 airport surveillance radars are under construction. We have 80 new instrument landing systems in various stages on the road to commissioning. By December 1, we hope to have completed the first airway offering both distance measuring equipment (DME) and VOR directional guidance. It will serve as a laboratory for developing the necessary procedures and control techniques, so that we will be ready to take full advantage of DME when the equipment becomes available in quantity. We have 450 ground DME units on order, and we expect delivery at the rate of 40 a month beginning in January. Most of them will be installed in combination with the VOR ranges, of which we have 328 commissioned as of the beginning of this month.

"We have under development in the field of en route navigation aids pictorial cockpit displays, one of which presents omnirange-DME information by means of a miniature airplane moving over a map. In the field of traffic control, among the interesting projects are those calling for bright tube displays in the radar sets, so that the scope can be viewed under normal lighting conditions of a tower or center, instead of having to be enclosed in a curtained booth. And to mention just one more project in the landing and approach field, we are evaluating a special form of radar known as Airport Surface Detection Equipment, which helps the controller to manage traffic on the field.

"We had hoped during the coming year to inaugurate testing, under simulated airline operating conditions, of at least one jet plane, but funds for work of this type were deleted from our appropriation. CAA has arranged for Los Angeles Airways to begin tests very shortly of the use which can be made of the omnirange and the ILS glide path by helicopters. We have loaned receiving equipment to the line. I see a rapid growth in importance to civil aviation of passenger helicopters.

"Dramatic progress has been achieved in the last ten or fifteen years in the safety record of scheduled air transportation. One important reason why more than 20 million passengers are riding the airlines this year is their knowledge that they are traveling more safely than they could in their own cars."

Two years in the making —AAL contract signed

Signing the contract with American Air Lines in November, 1951, are (left to right) Carl Ulrich, ALPA; Dick Lyons, AAL; Fred Swartz, AAL; Dick Pangburn, AAL; F. A. Spencer, AAL; Red Cary, Chairman of the AAL negotiating committee; Clarence Sayen, ALPA; and T. DePasqualli, AAL representative.

American Air Lines pilots who figured in the November signing of ALPA-AAL contract. Left to right, are Dick Lyons, Fred Swartz, Dick Pangburn, F. A. Spencer, and Red Cary.

clear logs

ALPA's Engineering and Air Safety Department urges that one way the pilot can help obtain better aircraft maintenance is through his efforts in keeping a clear and concise log of mechanical irregularities in the airplane's log book. Only through the pilots' efforts in keeping accurate accounts of airplane malfunctioning can it be determined whether or not the maintenance people are doing a good job of correcting reported difficulties.

The CAA is eager to check the efficiency of air line maintenance departments. If they have good pilot log book reports with which to work, it is a relatively easy matter to see how efficiently the maintenance departments perform their work. The CAA professes support to any pilot who rejects an airplane for mechanical malfunctioning. ALPA is certainly behind any pilot who refuses a flight because, in his opinion, the aircraft is not airworthy.

As each pilot knows, it is also important that every pilot leave a clear account of any operational irregularity of the aircraft so that the boarding pilot can know of any previous malfunction which was observed by the in-coming crew. It is one of the pilot's responsibilities to see that safety standards are maintained on his air line. This is one definite way in which he can assist in maintaining operational quality control. —*C.F.E.*

Sees safety in 'crystal ball'

W. A. Pennow, Westinghouse lighting engineer, sees greater safety for pilots in this "glowing crystal ball"—the new high-intensity airport runway light developed at Westinghouse's Cleveland plant. The new unit uses a single piece of glass to direct controlled amounts of light in a 360-degree circle. Resembling an over-sized thimble, the multiple lens sends beams of light along the edge of the runway in all directions. Note, in picture below, the light on the engineer's face and the bright spot to the left.

In picture at right, Pennow lifts the thimble-shaped, one-piece glass lens that covers the 200-watt bulb used in the unit. The unique lens sends high candlepower beams of light from flattened sides, a fan of light from one of the curved sides, and a glare-free glow from the remaining curved side. As a safety feature, the entire unit is fastened to the base with a breakable coupling that will break if the unit is struck by a taxiing plane or other vehicle. The U. S. Air Force has ordered 4,000 of the new lights.

"... Before and ...

You can put your own label on the two statues pictured to the left and right. Their creator, Pax Tirrell, calls them "Before" and "After" . . . or "Pilot" and "Co Pilot" . . . or "Non-Stop" and "Shuttle Run." Take your pick . . . as you read this story of Co-Pilot Tirrell and his clay creations.

It all started with a piece of clay.

Co-Pilot Pax Tirrell, NW Council 1, has turned that piece of clay into a profitable side-business.

Pilot models started

About a year ago, Tirrell, a skillful clay sculptor, modelled a pair of pilot figurines. The two humorous characters had identical facial features—but that's all. One was a Dapper Dan, immaculately dressed, smiling. The other was disheveled, down at the mouth, weary—a sad sack with wings.

It was just a hobby then. "I made them during idle moments while listening to the radio," says Tirrell. Then a friend saw the two figures and asked Tirrell to make him a set. That started it.

Word got around

Word got around among Northwest pilots about "Tirrell's pilots." First, it was a couple of boys in Council 1. Then more orders started to pour in. Impressed by this flow of business, Tirrell decided to turn "pro."

"I was making them in my basement at first," reported Tirrell, "but it got so big for me that I had to get a dresden factory to mould 'em."

A Minneapolis factory arranged to make moulds of the statuettes and mass-produce them. The factory returned the figurines, wire-reinforced and made of material resembling dental rock. Tirrell painted them and added a few finishing touches.

Couldn't keep up

But, even with the factory working for him, Tirrell couldn't keep up with the demand. His wife, Lola Jean, helped by running off the miniature leather suitcases and briefcases on her sewing machine. He recruited several neighbors to assist in the painting.

Despite all this help, Tirrell is more than two weeks behind in his orders. He sold more than 100 pairs in the first two months he turned "pro"—and the sales curve is going up as Northwest pilots spread the word to other airlines.

The delivery price of the statues outside Minneapolis is six dollars per pair. Tirrell estimates that it would take five hours to paint a pair. But he speeds up the process with a production-line setup in which he paints the faces of about 25 of the figurines, then colors the uniforms.

Naming the figurines

What names do these figures sport?

Well . . . that varies. Sometimes they're called "Pilot" and "Co-Pilot." Other times, "Before" and

Pax Tirrell poses with a group of his "pilots" in various stages of production. The table-top grouping is not a scene from an ALPA convention.

. . . After"

"After" or "Non-Stop" and "Shuttle Run."

"Wherever the shoe fits . . ." says Tirrell, with his ready smile.

The biggest part of the job, he says, was the modelling of the originals. That took a week and a half to do. He's never had any lessons in art, but he's modelled and carved a lot in his spare time.

Tirrell has been with Northwest since 1945. He was one of the original co-pilots on the Orient run in 1947.

Tirrell is from Benton Harbor, Michigan, but he now has his own home in Minneapolis . . . and the term "his own" is used literally. He built it himself, doing the plumbing, wiring, designing, and actual construction work. "I even mixed the concrete and poured it myself," he adds.

Projects for the future

Tirrell has two projects for the immediate future. The first is making dolls to resemble his two daughters, Arley May, 8, and Terry Jean, 6.

The second concerns his side-business. He's hard at work finishing a pair of stewardess figures that will be similar in spirit to the pilot models.

That's just the beginning, though. Tirrell has big plans for his figurine business, and those plans include starting an advertising campaign real soon.

The sky's the limit

"There's no limit to what you can do," he says enthusiastically. "You can do the army, postman, railroadman—almost any line of business. The sky's the limit."

And, as we said, it all started with a piece of clay.

GIVE *Voluntarily* TO
MARCH OF DIMES
JANUARY 2-31

JANUARY

		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

Air safety cooperation praised

ALPA's Engineering and Air Safety Department received recognition of its air safety efforts in a letter received from W. E. Koneczny, Chief of the Airworthiness Division, CAB Bureau of Safety Regulation. In his letter, Mr. Koneczny said:

"I wish to take this opportunity to reiterate on behalf of the Bureau of Safety Regulation, and particularly this Division, our appreciation for the wonderful cooperation which you and your associates in the ALPA rendered during the annual airworthiness meeting. The spirit with which you participated in the discussions made it possible for a very fruitful exchange of thoughts which, I believe, has resulted in a sounder basis for the proposed amendments to the regulations contained in the draft releases resulting from the annual review. It is our sincere hope that the mutual cooperation of all concerned evidenced at this last annual meeting can extend into the future for the benefit of safety in civil aviation."

IT'S TOPS

British Canberra jet bomber flies the Atlantic from Ireland to Newfoundland in the record-smashing time of four hours and 19 minutes, just 21 minutes less than another Canberra made the crossing in February. (Below) The crew, left to right, Robert Rylands, Roland P. Beamont, chief test pilot, and D. A. Watson, after their arrival in Baltimore on a two hour and 51 minute flight from Newfoundland. (Top) A Canberra of the type flown the Atlantic.

Denver pilots fight a lonely battle...

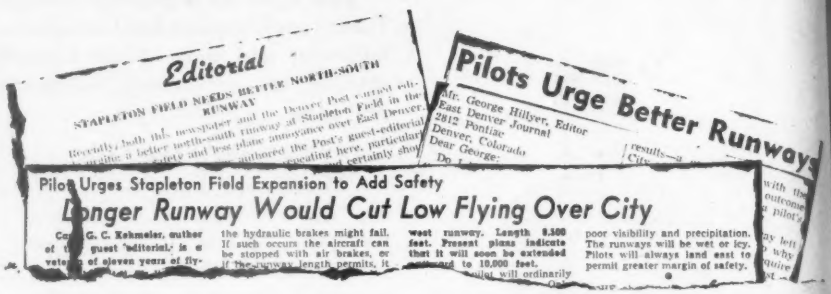
To Denver-based pilots, the fight for air safety has been a lonely battle.

To the right is a sampling of the clippings that have resulted from that fight. "Pilots Urge Better Runways," "Pilot Urges Stapleton Field Expansion to Add Safety" say the headlines. The stories go into detail.

One, a guest editorial in the Denver Post by Capt. G. C. Kehmeier, safety chairman for Council 33, concludes:

"A two-mile-long north-south runway would get rid of most of the low flying over Denver from Stapleton field.

"At present there are few buildings to the north of Stapleton field. In planning an airport for the future, why do not city officials charged with such a responsibility acquire that area for future use? If we wait five years, it may be filled with homes and factories and acquisition will be far more difficult.



Editorial

STAPLETON FIELD NEEDS BETTER NORTH-SOUTH RUNWAY

Pilots Urge Better Runways

Mr. George Hillyer, Editor
East Denver Journal
2812 Pontiac
Denver, Colorado
Dear George:

Pilots Urges Stapleton Field Expansion to Add Safety

Longer Runway Would Cut Low Flying Over City

"Many of you people ride the airlines. Like me, you are interested in air safety. But, in achieving that goal, let us not impose additional burdens on the pilot."

A former Council 33 member, now San Francisco based, H. L. Jacobson, wrote in the East Denver Journal:

"At present, Stapleton's instrument landing runway is the shortest on the field, most landings are made with a down-wind component which is in violation of the air safety program of the Air Line Pilots Association, it does not have either high intensity runway lighting or approach lights such as are installed in much smaller cities, does not have any form of radar, and the length of all runways are too short for the adequate margin of safety required of present-day aircraft."

Last issue, The Air Line Pilot ran another clipping—a guest editorial on air safety in Denver by Capt. Kehmeier.

Then, earlier this month, Denver had a chance to see what the pilots meant. They saw it on the front pages of their newspapers . . . in pictures such as are reproduced here. The top picture shows the scene after a B-29 crashed in a residential section of Denver near Lowry Field, which adjoins Stapleton. The bottom picture shows the crash of a UAL training plane near Stapleton.

Air safety has become an important subject in Denver. A "blue-ribbon committee" has been appointed to study the problem.

It is possible that all that will come out of it at present is another "local ordinance" — another Alexandria, Va., type of restriction. If so, Denver pilots will have to keep on fighting for genuine air safety.

It is possible, too, that a beginning will be made toward the specific changes proposed by the pilots.

...for air safety...

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Page 11—CAA Aviation Information photo.
Page 12—CAA Aviation Information photo.
Page 13—Top, AAL photos. Bottom, Acme photos.
Pages 14 and 15—Northwest Airlines photos. Right, International News photos.
Page 16—Photos by Morris A. Engle.

In the future, the feature, "In Constant Memoriam," will appear only in designated memorial issues.